

SPECIFICATION

A Masking MemberFIELD OF THE INVENTION

The present invention relates to a masking member used to protect a part of an article to from coating.

BACKGROUND OF THE INVENTION

Prior to coating, a masking member is attached to the part(part to be masked) of an article to be coated, to protect said part from coating. Said masking member may be removed from said part after coating, drying and curing by heating it to dissipate the fluidity of its coating film. Accordingly, since said masking member should have resistance to the above mentioned coating process heat treatment, a masking member made of an engineering plastic such as polyphenylene ether, or the like, having a good heat resistance, has been provided(Patent Literature 1). Said masking member, made of engineering plastic, is heat resistant at temperatures higher than 150°C, and can be repeatedly used even in the coating process including high temperature heat treatment. Further, a polyamide is added to the material of said masking member to improve its moldability (Patent Literature 2)

Patent Literature 1 ; TOKKAIHEI 05-261323

Patent Literature 2 ; TOKKAI 2002-187961

However, said engineering plastic such as polyphenylene ether, or the like, has poor compatibility with a polyamide, and the effect of said polyamide added to said engineering plastic, to improve the moldability of said engineering plastic, has not been sufficiently utilized.

DISCLOSURE OF THE INVENTION

To solve said problem, the present invention provides a masking member(11,21,31,41,41) which is a molded article manufactured by vacuum and/or pressure forming a sheet made of a polymer alloy containing an engineering plastic, a polyamide and a compatibilizer, wherein said engineering plastic and said polyamide are mixed together with a weight ratio of between 20:80 and 80:20, with said compatibilizer being added in an amount of between 0.01 and 50 parts by weight to 100 parts by weight of the

sum of said engineering plastic and said polyamide.

Further, the present invention provides a masking member(11,21,31,41,51) made of a polymer alloy containing a compatibilized engineering plastic and a polyamide, wherein said compatibilized engineering plastic and said polyamide are mixed together with a weight ratio of between 20:80 and 80:20.

Furthermore, a rubber and/or elastomer may be added to said polymer alloy, wherein said rubber and/or elastomer is(are) added to said polymer alloy commonly in an amount of between 1 and 50 parts by weight to 100 parts by weight of the sum of said engineering plastic and polyamide.

Said engineering plastic is preferably polyphenylene ether or a modified polyphenylene ether, with said polyamide preferably being nylon6, and further, said rubber and/or elastomer is preferably a styrene-hydrogenated polyolefin-styrene block copolymer.

It is preferable that the thickness of said polymer alloy preferably is between 0.1 and 1.5mm.

BRIEF DESCRIPTION OF THE DRAWINGS

Figs.1 to 4 relate to the first embodiment of the present invention.

Fig.1 is a perspective view of a masking member, and the pillar to which said masking member is attached.

Fig.2 is a sectional view along the A-A line in Fig. 4 illustrating the provisional attaching of said masking member to said pillar.

Fig.3 is a sectional view along the A-A line in Fig.4 illustrating the final attaching of said masking member to said pillar.

Fig.4 is a perspective view illustrating a case where said masking member is attached to said pillar.

Fig.5 relates to the second embodiment, and is a perspective view of the masking member and pillar to which said masking member is attached.

Figs. 6 to 8 relate to the third embodiment.

Fig.6 is a perspective view of a masking member, and the front bumper of the car to which said masking member is attached.

Fig.7 is a side-sectional view illustrating a case where said masking member is attached to said bumper.

Fig.8 is a cross-sectional view illustrating a case where said masking member is attached to said bumper.

To manufacture a masking member using said polymer alloy as a material, commonly the vacuum forming or the vacuum-pressure forming method is applied, in which procedure a film or a sheet of said polymer alloy can be formed accurately and precisely into a deep drawing shape or complicated shape, readying the masking member for efficient mass production. However, pressure forming, may also be applied in the manufacturing of said masking member.

A sheet or an expanded sheet of thermoplastic resin, such as polyolefin such as polyethylene, polypropylene, ethylene-propylene-copolymer, ethylene-vinyl acetate copolymer, or the like, polyvinyl chloride resin, acrylic resin, methacrylic resin, polyvinylidene chloride resin, styrenic resin, vinyl propionate resin, styrene-butadiene copolymer, polyester resin, or the like, may be laminated onto said sheet of said polymer alloy.

In order to enhance the affinity of a masking member surface made of said polymer alloy, with paint or adhesive, a surface treatment such as a corona discharge treatment, primer coating treatment, or the like, may be performed.

The primer used for the primer coating is, for example, a synthetic resin type primer, such as modified polyolefin, or olefin copolymer (e.g. chlorinated polypropylene, ethylene-vinylacetate copolymer), a synthetic rubber such as styrene-butadiene rubber, acrylnitrile-butadiene rubber, chloroprene-rubber, polybutadiene, or the like; an acrylic synthetic resin, vinyl synthetic resin, an acrylic synthetic resin containing an amino group and/or amide group, a vinyl synthetic resin containing an amino group and/or amide group, an amino synthetic resin, epoxy resin or the like; and a low-molecular weight compound primer such as aluminum alcoholate or an aluminum chelate agent such as aluminum isopropylate, aluminum triacetylacetonate, or the like; an alkyl metal such as 2-ethylhexyl lead, hexadecyl lithium or the like; an organotin compound such as dibutyl tin diacetate, di-n-butyl tin dioxide, or the like; a silane compound such as methylvinyl dichloro silane, or the like; a metal complex salt of a 1, 3-dicarbonyl compound such as acetylacetone lithium, acetylacetone beryllium, or the like; an organotitanium compound such as tetrabutyl titanate, or the like; a boric acid compound such as tri-n-butyl borate, triphenyl borate, or the like; a phosphate such as trioil